

Application of antijamming robust analysis method for selenocentric reference net building

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Abstract

© 2016, Education and Upbringing Publishing. All rights reserved. The solution of the problem about defining some physical, geometrical, biological, economical etc parameters from measurements involves a lot of data processing. These data arrays are formed by modern technologies and measurement systems during space and ground physical and biological experiments; photogrammetric, geodetic, astrometric, navigation measurements and others. This paper presents the possibility of using antijamming analysis for long time series of selenodetic observations. Development of this method is caused by active exploration of the Moon that involves creation of precession coordinate-time provision to build navigation selenocentric coordinate system and to create digital lunar maps. Using the alternative approaches to solve estimation problem of the parameters – classic least square method and antijamming analysis – we present the results of comparative analysis for dynamical coordinates of 10 craters on lunar surface.

Keywords

Antijamming statistical analysis, M-estimator method, Selenocentric reference net, Selenodetic observations